

REMARKS

Claims 1 - 30 were pending in the application. Claims 1, 2, 16, 18, 27, and 29 have been amended. Accordingly, claims 1-30 remain pending in the application.

35 U.S.C. § 103 Rejections

1. Claims 1-7, 15-16, 18-21, 23, and 27 were rejected under 35 U.S.C. 103(a) as being unpatentable over Chih-Lui I (U.S. Patent # 6,088,335) in view of Shah et al. (U.S. Patent # 5,410, 536). Applicant respectfully traverses this rejection.

Applicant notes that to establish a prima facie obviousness of a claimed invention, all claim limitations must be taught or suggested by the prior art. In re Royka, 490 F.2d 981, 180 U.S.P.Q. 580 (C.C.P.A. 1974), MPEP 2143.03.

Applicant respectfully submits that Chih-Lui I and Shah, whether alone or combined, fail to teach or suggest “wherein, in response to said first device re-conveying said first request to said second device in excess of a retry limit, said first device and said second device are configured to cause an error recovery mechanism to be initiated” as recited by claim 1.

The Examiner contends that these features are taught in column 8, lines 25-30 of Chih-Lui I, and in column 19, lines 50-63 of Shah. Applicant respectfully disagrees. Chih-Lui I teaches, in column 8, lines 25-30,

In step 415, this assignment is then transmitted to the mobile. If the scheduled list is longer than the threshold L, the mobile is told to retry later (Retry Delay) in step 415. The base station selects the value of this parameter based upon loading conditions at that base station. When a mobile receives a delay parameter in a data burst assignment message 415, it initiates such a delay, step 417, before starting its transmission of the assigned burst length, step 419, and at the assigned data rate, step 421. In an alternate embodiment, the mobile may be required to wait for an explicit BEGIN message to begin high data rate transmission. (Emphasis added)

While Chih-Lui I teaches that the mobile device waits for a specific amount of time corresponding to the delay parameter before starting its transmission of the assigned burst length, Chih-Lui I fails to teach or suggest initiating an error recovery mechanism in response to “re-conveying said first request to said second device **in excess of a retry limit**” as recited by claim 1. Specifically, Chih-Lui I fails to teach the concept of a “retry limit” and initiating an error recovery mechanism in response to exceeding the “retry limit”.

Furthermore, Applicant notes that Shah teaches, “Error recovery is symmetrical for both nodes. When an error occurs both nodes will enter the ‘check’ state and invoke the Link ERP.” (Column 18, Lines 64-66) (Emphasis added) Also, Shah teaches, in column 19, lines 17-63:

The first (or only) node that detects the error enters the ‘check’ state and invokes its Link ERP, **The Link ERP functions as follows:**

1. The ERP waits until the transmitter has finished sending the current packet, if any.
2. The ERP then builds the Link Status Byte by reference to the hardware.
3. If the line driver or receiver have detected a line fault then the ERP tries to reset the error. If this fails then the application is alerted via an ERP exit (‘Permanent line fault’).
8. The implementation must protect against the ERP looping if there is a permanent error. Since both nodes are always involved in error recovery it is sufficient if only one node provides this protection, eg, the upper node in a hierarchical system. The following is an example of one method that can be used. Each invocation of the ERP increments a retry counter that is reset to zero periodically by a timer. If the number of retries in one period of the timer exceeds some maximum value then the ERP waits 10 ms to ensure the remote node recognises that retry is being aborted. The application is then alerted via an **ERP exit** (‘Retry limit exceeded’). This scheme also protects against excessive use of the ERP in the event of severe external noise. (Emphasis added)

Applicant notes that the method of Shah cited by the examiner prevents the Error Recovery Procedure (ERP) from looping and prevents excessive use of the ERP. Each invocation of the ERP

increments a retry counter, and if the number of retries in one period of the timer exceeds a maximum value, the operation is aborted via an ERP exit. However, Chih-Lui I and Shah, whether alone or combined, fail to teach or suggest “in response to said first device re-conveying said first request to said second device in excess of a retry limit, said first device and said second device are configured to cause an error recovery mechanism to be initiated” as recited by claim 1.

In accordance, claim 1 is believed to patentably distinguish over Chih-Lui I and Shah, whether alone or combined. Claims 2-7, 21, 23, and 27 depend on claim 1 and are therefore believed to patentably distinguish over Chih-Lui I and Shah, whether alone or combined, for at least the reasons given above.

With regard to claim 4, Applicant respectfully submits that Chih-Lui I fails to teach or suggest “wherein said delay value corresponds to a first value in response to said temporarily unavailable condition corresponding to a first type of condition and wherein said delay value corresponds to a second value in response to said temporarily unavailable condition corresponding to a second type of condition.” The Examiner contends that these features are taught in column 9 line 15 - column 10 line 25 of Chih-Lui I (i.e., “loading conditions” and “L frames”). Applicant respectfully disagrees. Chih-Lui I teaches, “If the host's load condition is too close to a predetermined load level, step 600, then a retry delay command is sent, in step 600a”, and “the base station checks its list of scheduled bursts and adds the mobile to its request list, if the list is shorter than L frames, and transmits the assignment message 415 to the mobile. If the scheduled list is longer than the threshold L, the mobile is told in message 415 to retry later”. (Chih-Lui I, Column 8, Lines 51-54 and Column 10, Lines 17-22) However, Chih-Lui I fails to teach or suggest the features of claim 4 highlighted above. In accordance, claim 4 is believed to patentably distinguish over Chih-Lui I and Shah, whether alone or combined.

In addition, Applicant respectfully submits that Chih-Lui I and Shah, whether alone or combined, fail to teach or suggest “in response to said first device re-conveying said first request to the second device in excess of a retry limit, initiating an error recovery mechanism” as recited by

claim 15. Claim 15 recites features similar to those highlighted above with regard to claim 1 and is therefore believed to patentably distinguish over Chih-Lui I and Shah, whether alone or combined, for at least the reasons given in the above paragraphs discussing claim 1. Claims 16 and 18-20 depend on claim 15 and are therefore believed to patentably distinguish over Chih-Lui I and Shah, whether alone or combined, for the same reasons.

Furthermore, Applicant respectfully submits that Chih-Lui I and Shah, whether alone or combined, fail to teach or suggest “**determining the retry limit associated with the first request**” as recited by amended claim 18. In accordance, claim 18 is believed to patentably distinguish over Chih-Lui I and Shah, whether alone or combined.

2. Claims 8-9 and 12-13 were rejected under 35 U.S.C. 103(a) as being unpatentable over Chih-Lui I in view of Bailey et al. (U.S. Patent # 5,189, 734). Applicant respectfully traverses this rejection.

Applicant notes that to establish a prima facie obviousness of a claimed invention, all claim limitations must be taught or suggested by the prior art. In re Royka, 490 F.2d 981, 180 U.S.P.Q. 580 (C.C.P.A. 1974), MPEP 2143.03.

Applicant respectfully submits that Chih-Lui I and Bailey, whether alone or combined, fail to teach or suggest “wherein said second device is configured to store historical data corresponding to previous temporarily unavailable conditions, wherein said second device is configured to determine said delay value based on the stored historical data” as recited by claim 8.

The Examiner contends that these features are taught in column 6, lines 1-25 and column 4, lines 40-68 of Bailey. Applicant respectfully disagrees. Applicant notes that Bailey teaches “A cellular radio system in which a base station (BS1) establishing two way communication with a mobile (10) requests base stations (BS2 to BS7) of a subset of adjacent cells to reserve a channel so that in the event of handover to a base station in one of these cells this can be executed quicker than if the reservation had not been made”. (Abstract) Also, Bailey teaches, in column 6, lines 1-25:

Base stations can monitor handover traffic from adjacent cells to collate a statistical data base of handover traffic flow to and from adjacent cells and user's mobility habits. With this knowledge, the base station can estimate the proportion of users likely to require handover from particular neighbours and the likely delay before the associated handover request is made. Using such information the base station can maintain and modify a pool of channels which are reserved against allocation to new calls in order that the system can cope with existing calls which it is anticipated will be transferred from one cell to the next. The network controller or base station can warn current users of an impending loss of service due to adjacent cells being full, cells which are temporarily out of use due to a fault in a base station or there are no adjacent cells in the estimated direction of travel. In the event of a base station failing, then those calls which have channels already reserved for their use in adjacent cells may have some chance of being recovered and continued. The call history in a call data packet will allow the network controller or base station to note a user moving rapidly through a succession of cells and if necessary to adjust the processing priorities. (Emphasis added)

Bailey teaches a mechanism for monitoring handover traffic flow, and for estimating the proportion of users likely to require handover and the likely delay before the associated handover request is made. Bailey defines "handover" as follows: "If the user moves so far away from the base station that he is becoming out of range then the system will reconnect him or "Handover" to a base station which he has been approaching" (see column 1, lines 24-28). In other words, if mobile device 10 is communicating with base station BS1 but moves far away from base station BS1 such that the signal quality is unacceptable, the system reconnects (i.e., handover) mobile device 10 to a closer base station, e.g., base station BS2 (see Figure 1). The communication technique of Bailey (communication between mobile device 10, base station BS1, and base station BS2) does not cover the communication technique (between a first device and a second device) recited by claim 8. Specifically, Bailey fails to teach or suggest "said second device is configured to convey a response to said first device including a delay value corresponding to said temporarily unavailable condition at the second device" as recited by claim 8. In Bailey, estimating the likely delay before the associated handover request is made does not correspond to "a delay value corresponding to said temporarily unavailable condition at the second device" and "said second device is configured to determine said delay value based on the stored historical data", as recited by claim 8. Furthermore, in Bailey, the statistical database of handover traffic flow does not correspond to "historical data

corresponding to previous temporarily unavailable conditions”, as recited by claim 8.

In accordance, claim 8 is believed to patentably distinguish over Chih-Lui I and Bailey, whether alone or combined. Claims 9 and 12-13 depend on claim 8 and are therefore believed to patentably distinguish over Chih-Lui I and Bailey, whether alone or combined, for at least the same reasons.

3. Claims 10 and 11 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Chih-Lui I in view of Bailey, and further in view of Chambers. Claim 14 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Chih-Lui I in view of Bailey, and further in view of Shah. Claims 17, 22, 24-26, and 28 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Chih-Lui I in view of Shah, and further in view of Bailey. Claim 29 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Chih-Lui I in view of Shah, and further in view of Barlow. Claims 22, 24-26, and 28-29 are dependent upon claim 1, claims 10, 11, and 14 are dependent upon claim 8, and claim 17 is dependent upon claim 15, and are therefore believed to patentably distinguish over the cited references, whether alone or combined, for at least the reasons given in the above paragraphs discussing claims 1, 8, and 15.

With regard to claim 22, Applicant respectfully submits that Chih-Lui I, Shah, and Bailey, whether alone or combined, fail to teach or suggest “said second device is configured to generate said delay value based on a number of outstanding responses corresponding to the temporarily unavailable condition”. In accordance, claim 22 is believed to patentably distinguish over Chih-Lui I, Shah, and Bailey, whether alone or combined.

4. Claim 30 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Seo (U.S. Patent # 6,581,176) in view of Bailey.

Applicant respectfully submits that Seo and Bailey, whether alone or combined, fail to teach or suggest “wherein a delay value is associated with each of the plurality of temporarily

unavailable conditions and each delay value is a programmable value; wherein said second device is configured to convey a response to said first device including the delay value associated with a detected one of the plurality of temporarily unavailable conditions at the second device” as recited by claim 30. In accordance, claim 30 is believed to patentably distinguish over Seo and Bailey, whether alone or combined.

CONCLUSION

In light of the foregoing amendments and remarks, Applicant submits that all pending claims are now in condition for allowance, and an early notice to that effect is earnestly solicited.

If a phone interview would speed allowance of any pending claims, such is requested at the Examiner's convenience.

If any extensions of time (under 37 C.F.R. § 1.136) are necessary to prevent the above referenced application(s) from becoming abandoned, Applicant(s) hereby petition for such extensions. If any fees are due, the Commissioner is authorized to charge said fees to Meyertons, Hood, Kivlin, Kowert, & Goetzel, P.C. Deposit Account No. 501505/5181-38400/BNK.

Respectfully submitted,



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Date: 3-29-06